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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/748,474	12/29/2003	Ming-Chieh Chi	JCLA12429	7054

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EXAMINER	
BAYAT, ALI	
ART UNIT	PAPER NUMBER
2624	
MAIL DATE	DELIVERY MODE
08/21/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/748,474	CHI ET AL.	
	Examiner	Art Unit	
	ALI BAYAT	2624	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *29 December 2003*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-20* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,2,4-6 and 16-20* is/are rejected.

7)☒ Claim(s) *3 and 7-15* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *29 December 2003* is/are: a)☐ accepted or b)☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Drawings

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the electrically coupling between the different claimed devices must be shown or the features canceled from the claim 16. No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim5 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In line 3 of claim 5 the phrase "fuzzy situation" is unclear to Examiner, what do you mean by fuzzy situation? please explain.

Claim 16 recites the limitation "the input frame" in line 7. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claim16 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim 16 contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. Claim 16 is not enabled by the specification, because specification does not show the specific structure claimed, more specific it does not show the electrical couplings between the different claimed devices.

Claims 17-20 are also rejected because they depend to rejected claim 16.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-2, 4 and 16 are rejected under 35 U.S.C. 102(b) as being anticipated by Brady et al. (US 5,761,326).

Regarding claim 1, Brady provides for separating a plurality of region-of-interest regions from a plurality of non-region-of-interest regions of an image (Fig.2 element 12 col.5 lines 60-65, see video preprocessor 12 may further perform background subtraction, eliminating any image information not associated to a vehicle, see image is segmented into vehicle related pixels which corresponds to regions of interest and non-vehicle/background pixels which corresponds to non-regions of interest) ; and sending an input from the region-of-interest(Fig.3 element 47 col.8 lines 5-10, see region of interest is send to for vehicle identification by class) regions to a fuzzy logic control (Fig.3 element 51 col.8 lines 15-20 see fuzzy set theory is applied to the transformed data) wherein the fuzzy logic control is used for enhancing the quality of the region-of-interest regions and the overall quality of an output image (col.8 lines 20-23, see classification of any vehicle within the regions of interest corresponds to enhancing the quality of the regions of interest).

Regarding claim 2, Brady provides for a video coding method, wherein the input from the region-of-interest regions is calculated from a first control input (Figures 6A-6B, col.8 lines 49-55 see operator 66 for fuzzifies the angle characteristics) and a second control input from the region-of-interest regions (Figures 6A-6B, col.8 lines 49-55 see a location fuzzy set operator must be applied to the region of interest).

Regarding claim 4 Brady provides for a video coding method, wherein the fuzzy logic control includes a methodology (col.8 lines 15-20, see module 51 converts the geometrically transformed data to vector data by applying fuzzy set theory) to convert the input from the region-of-interest regions to fuzzy predicates (Figures 6A-6B, col.8 lines 49-55 see operator 66, each operator corresponds to one predicate).

regarding claim 16 as best understood, Brady provides for an encoder having an input terminal (Fig.1 video 2) and an output terminal (Fig.1 video 2 col.5 lines 30-35, see elements 14 and 16), wherein the input terminal of an encoder is electrically coupled to an input frame (this feature is inherent in the video camera); a segmentation device having an input terminal (Fig.2 element 12 col.5 lines 60-65) a first output terminal and a second output terminal(Fig.2 element 12 col.5 lines 60-65 see image is segmented into vehicle related pixels which corresponds to regions of interest and non-vehicle/background pixels which corresponds to non-regions of interest), wherein the input terminal of the segmentation device is electrically coupled to the input frame (this feature is

inherent in the video camera) ; and a fuzzy logic control device having an input terminal and an output terminal (Fig.3 module 51 col.8 lines 15-20 see fuzzy set theory is applied to the transformed data, therefore input) , wherein the input terminal of the fuzzy logic control device (Fig.3 element 51) is electrically coupled to the first output terminal of the segmentation device (Fig.3 element 47) and the output terminal of the fuzzy logic control device (Fig.3 element 51) is electrically coupled to the input terminal of the encoder (Fig.3 elements 54 and 55 col. 9 lines 63-65).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 5-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Brady et al. (US 5,761,326) in view of Jeong (US 5,475,433).

Regarding claim 5 as best understood, Brady does not provide for the fuzzy logic control includes a controlling function to calculate a linguistic membership function for determining a fuzzy situation. Jeong provides for controlling function to calculate a linguistic membership function (Figures 4A-4E col.7 lines 20-31 see linguistic truth values) for determining a fuzzy situation (col.7 lines 20-25, see determining the quantization step size). It would have been obvious to a person of ordinary skill in the art at time the invention was made to

incorporate the teaching of Jeong with the system and method of Brady to stabilize the screen quality of the restored picture even at a high compression rate, by means of determining a quantization step size according to a fuzzy control methodology. See col.4 lines 27-30 of Jeong.

Regarding claim 6 as best understood, Brady does not provides for , wherein the controlling function comprises a center of area (COA) method to determine the linguistic membership function. Jeong provides for a center of area (col.6 lines 10-11, see center of gravity). See claim 5 for obvious and motivation statements.

Objected Claims

6. Claims 3 and 7-15 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ALI BAYAT whose telephone number is (571)272-7444. The examiner can normally be reached on M-F 9:00 AM-5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew Bella can be reached on 571-272-7778. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Ali Bayat/
Patent Examiner
Division 2624
8/17/08